

elastomers.

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20. A balloon as in claim 19 wherein the first and second polymers are engineering polyurethane resins and polyurethane elastomers, respectively.

21. A balloon as in claim 19 wherein the first and second polymers are aromatic polyesters or copolyesters and aromatic polyester-polyether block copolymers, respectively.

22. A balloon as in claim 19 wherein the first and second polymers are aromatic polyesters and polyurethane-polyester block copolymers, respectively.

23. A balloon as in claim 19 wherein the first and second polymers are polycarbonates and polycarbonate urethane elastomers, respectively.

24. A balloon as in claim 21 wherein the second polymer is characterized as follows:
the block copolymer comprises two or more hard segments of a polyester and two or more soft segments of polyether;
the polyester hard segments are polyesters of an aromatic dicarboxylic acid and a C2-C4 diol, and
the polyether soft segments are polyethers of C2-C10 diols,
the block copolymer has a hardness, Shore D scale, of greater than 60; and
the percentage by weight of the block polymer attributable to the hard segments is between about 50% and about 95%.

25. A balloon as in claim 24 wherein the block copolymer has a Shore D hardness in the range of 65-75 and a flexural modulus in the range of 50,000-120,000 psi.

26. A balloon as in claim 24 wherein said polyether segment, is selected from the group consisting of poly(tetramethylene ether), poly(pentamethylene ether) and poly(hexamethylene ether).

27. A balloon as in claim 24 wherein said polyester segments are polyesters of an acid selected from the group consisting of ortho-, meta- or para- phthalic acid, naphthalenedicarboxylic acid and meta-terphenyl-4,4'-dicarboxylic acids and a diol selected from the group consisting of ethylene glycol, 1,3-propane diol and 1,4-butane diol.

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28. A balloon as in claim 21 wherein
the first polymer is selected from the group consisting of polyethylene
terephthalate, polyethylene naphthanate, polyethylene terephthalate-polyethylene
isophthalate copolymer, polybutylene terephthalate and polybutylene naphthanate, and,
the second polymer is poly(butylene terephthalate-*block*-poly(tetramethylene
oxide)).

29. A balloon as in claim 22 wherein
the first polymer is selected from the group consisting of polyethylene
terephthalate, polyethylene naphthanate, polyethylene terephthalate-polyethylene
isophthalate copolymer, polybutylene terephthalate and polybutylene naphthanate, and,
the second polymer is aliphatic polyester polyurethane.

30. A balloon as in claim 19 having a wall strength greater than 20,000 psi.

31. A balloon as in claim 19 having a semi-compliant to non-compliant distension
profile whereby as inflation pressure is increased from 6 atm to 12 atm, the balloon expands from
a nominal diameter at the 6 atm pressure to an increased diameter at the 12 atm pressure which is
from about 5% to about 16% greater than said nominal diameter.

32. A balloon as in claim 19 having a nominal diameter of between 1.5 mm and 4.0
mm, the balloon having a burst pressure of at least 12 atm.

33. A dilation catheter having an elongated tubular body, a balloon mounted on a
distal end thereof and means for inflation of the balloon, wherein the balloon is a balloon as in
claim 19.

34. A balloon as in claim 20, wherein the first polymer is an aromatic polyurethane-
polyether.

35. A balloon as in claim 34, the first polymer having a flexural modulus of about
300,000.

36. A balloon as in claim 20, wherein said second polymer is selected from the group
consisting of Aliphatic polyurethane-polyether block copolymers, aromatic polyurethane-
polyether polymers, elastomeric polyurethane-polyethers and elastomeric polyurethane-